

**REMARKS**

Claims 1 to 19 are currently pending in this application. Claims 10 to 19 are indicated as being allowable, claims 1, 2 and 5 to 9 are rejected. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Additionally, claims 5 and 6 are indicated as being allowable if rewritten to overcome the rejections under 35 U.S.C. §112, 2nd paragraph and if rewritten to include all of the limitations of the base claim and any intervening claims.

By this amendment, Applicants have amended claims 1, 3, 4 and 5, and added new claim 20. The amendments find full support in the specification and drawings as filed. No new matter has been added. Entry of these amendments is respectfully requested. In view of the above amendments and the following remarks, Applicants respectfully submit that this application is in condition for allowance. Accordingly, reconsideration and a timely notice of allowance are respectfully requested.

**Amendment to Claim 1**

Claim 1 has been amended for clarity to recite “a support structure for supporting the moveable support, the frame, the detector and the optical relay.” Full support for this amendment is found in the specification and drawings as filed, for example on page 4, lines 19 to 21 and in Fig. 1. Additionally, claim 1 has been amended to recite “wherein the moveable support is moveable independently of the optical relay.” Full support for this amendment is found in the specification and drawings as filed, for example, on page 9, lines 1 to 19 and in Fig. 1. No new matter has been added.

**Rejections Under 35 U.S.C. §112, Second Paragraph**

The Examiner rejected claims 5 and 6 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, with regard to claim 5, the Examiner states that

the limitation “the wheel” in line 30 has no antecedent basis. Applicants have amended claim 5 to change “the wheel” to “the movable support.” Additionally, the Examiner states that the limitation “the exterior light source” in claim 6 has no antecedent basis. Applicants have amended claim 5 to add antecedent basis for “the exterior light source” in claim 6.

In view of the amendments to claim 5, Applicants respectfully request that this objection be withdrawn.

### **Rejection Under 35 U.S.C. §103(a)**

The Examiner rejected claims 1-2, 5 and 7 to 9 under 35 U.S.C. §103(a) as being unpatentable over Torgrip et al. (U.S. Patent Publication No. 2004/0065833). Applicants respectfully traverse this rejection.

The present invention is directed to a multimode fluorescent reader. The reader has an array of spaced apart light sources coupled to a moveable support so that one or more of the light sources can be selectively used; a frame for supporting a sample containing substrate; a detector configured to detect light; and an optical relay configured to transmit light from at least one light source to one of the plurality of sample sites and from the sample site to the detector. The moveable support for the one or more light sources is moveable independently of the optical relay.

In contrast to the present invention, Torgrip et al. (U.S. Patent Publication No. 2004/0182111) is directed to a method and apparatus for collecting diffuse reflected and/or transflected radiation and is particularly directed to spectrophotometric measurements on pulp (See pg. 1, ¶¶1-2). Applicants respectfully submit that Torgrip et al. fail to teach or suggest the use of an array of spaced apart light sources couple to a moveable support “wherein the moveable support is moveable independently of the optical relay” as claimed in claim 1.

In Torgrip et al., a plurality of radiation sources are arrayed around a ring. As explained on pg. 2, ¶33, a folding mirror conducts light from a selected radiation source to the sample. The mirror is rotatable to direct light from different radiation sources to the sample. The mirror also directs light reflected from the sample to a detector or collecting optics. In an embodiment, as

explained on pg. 3, ¶42, the ring of radiation sources can be rotatable such that the radiation sources follow the movement of the mirror. The reason for this is to make the illumination pathway of the sample and a reference more like each other. Thus, movement of the radiation sources is only discussed in the context of movement in conjunction with the moveable mirror.

The moving optical relay of Torgrip et al. requires precise alignment, which in turn requires complex and expensive controls. Additionally, as explained on pg. 2, ¶28 and seen in Fig. 3, lamps must be provided with measures to diminish the divergence of the light beam, such as dome-shaped mirrors. Moreover, it would be very hard to align and assemble the system of Torgrip et al. to view samples in small locations, such as a microplate. Alignment is essential to maximize the amount of energy delivered from each light source to the wells in a microplate. The well diameter in a 384 well microplate is approximately 3mm and less than 1.5mm in a 1536 microplate.

This is in contrast to the present invention which is simpler, less expensive, and easier to fabricate. Additionally, by using an array of spaced apart light sources coupled to a moveable support that is moveable independently of the optical relay, the optical relay can be precisely aligned for viewing samples in small substrates, such as microplates.

Accordingly, Applicants respectfully submit that Torgrip et al. fail to teach or suggest the a moveable support “moveable independently of the optical relay” claimed in claim 1. Therefore, Applicants respectfully submit that claim 1 is novel and non-obvious over Torgrip et al. Claims 2, 5, 7 to 9 and 18 are dependent on claim 1 and by definition contain all of the limitations of claim 1. Accordingly, Applicants respectfully submit that claims 2, 5, 7 to 9 and 18 are patentable over Torgrip et al. for the reasons given above with regard to claim 1 as well as because of the additional limitations contained therein.

Therefore, Applicants respectfully request that this rejection be withdrawn as to claims 1, 2, 5, and 7 to 9 and not applied to claim 18.

**Comments on Allowable Subject Matter**

The Examiner indicated that claims 3 and 4 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have amended claim 3 and 4 to include all of the limitations of the base claim. There were no intervening claims. Accordingly, Applicants respectfully submit that claims 3 and 4 are in condition for allowance.

Additionally, the Examiner indicated that claims 5 and 6 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, 2nd paragraph and if rewritten to include all of the limitations of the base claim and any intervening claims. As explained above, Applicants respectfully submit that the amendments to claim 5 overcome the rejections under 35 U.S.C. §112, 2nd paragraph. Additionally, claim 5 has been amended to include all of the limitations of the base claim. There were no intervening claims. Claim 6 depends from claim 5. Accordingly, Applicants respectfully submit that claims 5 and 6 are in condition for allowance.

The Examiner indicated that claim 18 is allowed by virtue of its dependency on claim 17. Applicants wish to point out that claim 18 is dependent on claim 1. Applicants submit that claim 1 is in condition for allowance as explained above. However, the Examiner is respectfully requested to clarify the decision with regard to claim 18 in the next Office communication.

Additionally, Applicants have added new claim 20 with all of the limitations of claim 18, except that claim 20 is dependent on claim 17. Accordingly, Applicants respectfully submit that new claim 20 is in condition for allowance, and indication of allowance is respectfully requested.

**CONCLUSION**

In view of the above amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Therefore, reconsideration and a timely indication of allowance are respectfully requested. If the Examiner believes a telephone conference would aid in the prosecution of this application, then the Examiner is invited to contact the undersigned at the below listed telephone number.

A fee of \$600 is believed due in connection with this communication for the addition of three independent claims to reach a total of six independent claims. The Examiner is authorized to charge payment of this fee and any other fees due with this communication to Deposit Account No. 19-2090.

Respectfully Submitted,  
SHELDON & MAK PC

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